

inches

centimeters

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
1.38	1.15	0.92	0.69	0.46	0.23	0.00	0.23	0.46	0.69	0.92	1.15	1.38	1.61	1.84	2.07	2.30	2.53	2.76	2.99	3.22	3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75	5.98	6.21	6.44	6.67	6.90	7.13	7.36	7.59	7.82	8.05	8.28	8.51	8.74	8.97	9.20	9.43	9.66	9.89	10.12	10.35	10.58	10.81	11.04	11.27	11.50	11.73	11.96	12.19	12.42	12.65	12.88	13.11	13.34	13.57	13.80	14.03	14.26	14.49	14.72	14.95	15.18	15.41	15.64	15.87	16.10	16.33	16.56	16.79	17.02	17.25	17.48	17.71	17.94	18.17	18.40	18.63	18.86	19.09	19.32	19.55	19.78	20.01	20.24	20.47	20.70	20.93	21.16	21.39	21.62	21.85	22.08	22.31	22.54	22.77	23.00	23.23	23.46	23.69	23.92	24.15	24.38	24.61	24.84	25.07	25.30	25.53	25.76	25.99	26.22	26.45	26.68	26.91	27.14	27.37	27.60	27.83	28.06	28.29	28.52	28.75	28.98	29.21	29.44	29.67	29.90	30.13	30.36	30.59	30.82	31.05	31.28	31.51	31.74	31.97	32.20	32.43	32.66	32.89	33.12	33.35	33.58	33.81	34.04	34.27	34.50	34.73	34.96	35.19	35.42	35.65	35.88	36.11	36.34	36.57	36.80	37.03	37.26	37.49	37.72	37.95	38.18	38.41	38.64	38.87	39.10	39.33	39.56	39.79	40.02	40.25	40.48	40.71	40.94	41.17	41.40	41.63	41.86	42.09	42.32	42.55	42.78	43.01	43.24	43.47	43.70	43.93	44.16	44.39	44.62	44.85	45.08	45.31	45.54	45.77	46.00	46.23	46.46	46.69	46.92	47.15	47.38	47.61	47.84	48.07	48.30	48.53	48.76	48.99	49.22	49.45	49.68	49.91	50.14	50.37	50.60	50.83	51.06	51.29	51.52	51.75	51.98	52.21	52.44	52.67	52.90	53.13	53.36	53.59	53.82	54.05	54.28	54.51	54.74	54.97	55.20	55.43	55.66	55.89	56.12	56.35	56.58	56.81	57.04	57.27	57.50	57.73	57.96	58.19	58.42	58.65	58.88	59.11	59.34	59.57	59.80	60.03	60.26	60.49	60.72	60.95	61.18	61.41	61.64	61.87	62.10	62.33	62.56	62.79	63.02	63.25	63.48	63.71	63.94	64.17	64.40	64.63	64.86	65.09	65.32	65.55	65.78	66.01	66.24	66.47	66.70	66.93	67.16	67.39	67.62	67.85	68.08	68.31	68.54	68.77	69.00	69.23	69.46	69.69	69.92	70.15	70.38	70.61	70.84	71.07	71.30	71.53	71.76	71.99	72.22	72.45	72.68	72.91	73.14	73.37	73.60	73.83	74.06	74.29	74.52	74.75	74.98	75.21	75.44	75.67	75.90	76.13	76.36	76.59	76.82	77.05	77.28	77.51	77.74	77.97	78.20	78.43	78.66	78.89	79.12	79.35	79.58	79.81	80.04	80.27	80.50	80.73	80.96	81.19	81.42	81.65	81.88	82.11	82.34	82.57	82.80	83.03	83.26	83.49	83.72	83.95	84.18	84.41	84.64	84.87	85.10	85.33	85.56	85.79	86.02	86.25	86.48	86.71	86.94	87.17	87.40	87.63	87.86	88.09	88.32	88.55	88.78	89.01	89.24	89.47	89.70	89.93	90.16	90.39	90.62	90.85	91.08	91.31	91.54	91.77	92.00	92.23	92.46	92.69	92.92	93.15	93.38	93.61	93.84	94.07	94.30	94.53	94.76	94.99	95.22	95.45	95.68	95.91	96.14	96.37	96.60	96.83	97.06	97.29	97.52	97.75	97.98	98.21	98.44	98.67	98.90	99.13	99.36	99.59	99.82	100.05	100.28	100.51	100.74	100.97	101.20	101.43	101.66	101.89	102.12	102.35	102.58	102.81	103.04	103.27	103.50	103.73	103.96	104.19	104.42	104.65	104.88	105.11	105.34	105.57	105.80	106.03	106.26	106.49	106.72	106.95	107.18	107.41	107.64	107.87	108.10	108.33	108.56	108.79	109.02	109.25	109.48	109.71	109.94	110.17	110.40	110.63	110.86	111.09	111.32	111.55	111.78	112.01	112.24	112.47	112.70	112.93	113.16	113.39	113.62	113.85	114.08	114.31	114.54	114.77	115.00	115.23	115.46	115.69	115.92	116.15	116.38	116.61	116.84	117.07	117.30	117.53	117.76	117.99	118.22	118.45	118.68	118.91	119.14	119.37	119.60	119.83	120.06	120.29	120.52	120.75	120.98	121.21	121.44	121.67	121.90	122.13	122.36	122.59	122.82	123.05	123.28	123.51	123.74	123.97	124.20	124.43	124.66	124.89	125.12	125.35	125.58	125.81	126.04	126.27	126.50	126.73	126.96	127.19	127.42	127.65	127.88	128.11	128.34	128.57	128.80	129.03	129.26	129.49	129.72	129.95	130.18	130.41	130.64	130.87	131.10	131.33	131.56	131.79	132.02	132.25	132.48	132.71	132.94	133.17	133.40	133.63	133.86	134.09	134.32	134.55	134.78	135.01	135.24	135.47	135.70	135.93	136.16	136.39	136.62	136.85	137.08	137.31	137.54	137.77	138.00	138.23	138.46	138.69	138.92	139.15	139.38	139.61	139.84	140.07	140.30	140.53	140.76	140.99	141.22	141.45	141.68	141.91	142.14	142.37	142.60	142.83	143.06	143.29	143.52	143.75	143.98	144.21	144.44	144.67	144.90	145.13	145.36	145.59	145.82	146.05	146.28	146.51	146.74	146.97	147.20	147.43	147.66	147.89	148.12	148.35	148.58	148.81	149.04	149.27	149.50	149.73	149.96	150.19	150.42	150.65	150.88	151.11	151.34	151.57	151.80	152.03	152.26	152.49	152.72	152.95	153.18	153.41	153.64	153.87	154.10	154.33	154.56	154.79	155.02	155.25	155.48	155.71	155.94	156.17	156.40	156.63	156.86	157.09	157.32	157.55	157.78	158.01	158.24	158.47	158.70	158.93	159.16	159.39	159.62	159.85	160.08	160.31	160.54	160.77	161.00	161.23	161.46	161.69	161.92	162.15	162.38	162.61	162.84	163.07	163.30	163.53	163.76	163.99	164.22	164.45	164.68	164.91	165.14	165.37	165.60	165.83	166.06	166.29	166.52	166.75	166.98	167.21	167.44	167.67	167.90	168.13	168.36	168.59	168.82	169.05	169.28	169.51	169.74	169.97	170.20	170.43	170.66	170.89	171.12	171.35	171.58	171.81	172.04	172.27	172.50	172.73	172.96	173.19	173.42	173.65	173.88	174.11	174.34	174.57	174.80	175.03	175.26	175.49	175.72	175.95	176.18	176.41	176.64	176.87	177.10	177.33	177.56	177.79	178.02	178.25	178.48	178.71	178.94	179.17	179.40	179.63	179.86	180.09	180.32	180.55	180.78	181.01	181.24	181.47	181.70	181.93	182.16	182.39	182.62	182.85	183.08	183.31	183.54	183.77	184.00	184.23	184.46	184.69	184.92	185.15	185.38	185.61	185.84	186.07	186.30	186.53	186.76	186.99	187.22	187.45	187.68	187.91	188.14	188.37	188.60	188.83	189.06	189.29	189.52	189.75	189.98	190.21	190.44	190.67	190.90	191.13	191.36	191.59	191.82	192.05	192.28	192.51	192.74	192.97	193.20	193.43	193.66	193.89	194.12	194.35	194.58	194.81	195.04	195.27	195.50	195.73	195.96	196.19	196.42	196.65	196.88	197.11	197.34	197.57	197.80	198.03	198.26	198.49	198.72	198.95	199.18	199.41	199.64	199.87	200.10	200.33	200.56	200.79	201.02	201.25	201.48	201.71	201.94	202.17	202.40	202.63	202.86	203.09	203.32	203.55	203.78	204.01	204.24	204.47	204.70	204.93	205.16	205.39	205.62	205.85	206.08	206.31	206.54	206.77	207.00	207.23	207.46	207.69	207.92	208.15	208.38	208.61	208.84	209.07	209.30	209.53	209.76	209.99	210.22	210.45	210.68	210.91	211.14	211.37	211.60	211.83	212.06	212.29	212.52	212.75	212.98	213.21	213.44	213.67	213.90	214.13	214.36	214.59	214.82	215.05	215.28	215.51	215.74	215.97	216.20	216.43	216.66	216.89	217.12	217.35	217.58	217.81	218.04	218.27	218.50	218.73	218.96	219.19	219.42	219.65	219.88	220.11	220.34	220.57	220.80	221.03	221.26	221.49	221.72	221.95	222.18	222.41	222.64	222.87	223.10	223.33	223.56	223.79	224.02	224.25	224.48	224.71	224.94	225.17	225.40	225.63	225.86	226.09	226.32	226.55	226.78	227.01	227.24	227.47	227.70	227.93	228.16	228.39	228.62	228.85	229.08	229.31	229.54	229.77	229.99	230.22	230.45	230.68	230.91	231.14	231.37	231.60	231.83	232.06	232.29	232.52	232.75	232.98	233.21	233.44	233.67	233.90	234.13	234.36	234.59	234.82	235.05	235.28	235.51	235.74	235.97	236.20	236.43	236.66	236.89	237.12	237.35	237.58	237.81	238.04	238.27	238.50	238.73	238.96	239.19	239.42	239.65	239.88	240.11	240.34	240.57	240.80	241.03	241.26	241.49	241.72	241.95	242.18	242.41	242.64	242.87	243.10	243.33	243.56	243.79	244.02	244.25	244.48	244.71	244.94	245.17	245.40	245.63	245.86	246.09	246.32	246.55	246.78	247.01	247.24	247.47	247.70	247.93	248.16	248.39	248.62	248.85	249.08	249.31	249.54	249.77	249.99	250.22	250.45	250.68	250.91	251.14	251.37	251.60	251.83	252.06	252.29	252.52	252.75	252.98	253.21	253.44	253.67	253.90	254.13	254.36	254.59	254.82	255.05	255.28	255.51	255.74	255.97	256.20	256.43	256.66	256.89	257.12	257.35	257.58	257.81	258.04